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Local Agencies of the North Delta
Bogle Vineyards / Delta Watershed Landowner Coalition
Diablo Vineyards and Brad Lange / Delta Watershed Landowner Coalition
Stillwater Orchards / Delta Watershed Landowner Coalition

BEFORE THE

CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

HEARING IN THE MATTER OF CALIFORNIA DEPARTMENT OF WATER RESOURCES AND UNITED STATES BUREAU OF RECLAMATION REQUEST FOR A CHANGE IN POINT OF DIVERSION FOR CALIFORNIA WATER FIX	***TESTIMONY OF THOMAS HESTER*** **Joint Case in Chief of: Islands, Inc., Delta Watershed Landowner Coalition, Bogle Vineyards, Diablo Vineyards, Stillwater Orchards and Local Agencies of the North Delta**

I, Thomas Hester, do hereby declare:

I. Introduction

I am the President of Islands, Inc. Islands, Inc. is the owner of over 6200 acres of land on Ryer Island, which represents over 50 percent of the agricultural land on Ryer Island. Ryer Island is situated in the northern part of the Sacramento-San Joaquin Delta across the Sacramento River, just north of Rio Vista. Ryer Island is bordered by Miner Slough and Steamboat Slough and is adjacent to Prospect Island. Ryer Island is named for Dr. Washington Ryer, a prominent physician who was General Winfield Scott's Assistant Surgeon during the Mexican-American War. Dr. Ryer was so enamored with California, he established a medical practice in Stockton. Dr. Ryer's family owned the entire island for many years and it is named in his honor. The Ryers married into the Nixon Family and Islands, Inc. is still owned by the Nixon Family. Lewis Nixon III was one of the former owners of the island and he is famous for being one of the "Band of Brothers" from Easy Company, 101st Airborne Division in World War II. My father, Clarence Hester, was the President of Islands, Inc. before me and was also a member of Easy Company, the "Band of Brothers" during World War II.

Islands, Inc. employs 12 to 15 full-time employees and at least 30 employees in the summer. During harvest, Islands, Inc. will employ an additional 70 people through labor contractors.

II. Islands' Water Rights

Islands, Inc. owns riparian water rights from the Sacramento River and established these rights as early as 1868. See Ex. II-37, California EWRIMS Printout for Islands, Inc. Islands, Inc. diverts water through a series of siphons and pumps directly from Miner Slough and Steamboat Slough, both tributaries to the Sacramento River. Islands, Inc. has 17 different intakes along the perimeter of Ryer Island that it uses to divert water for irrigation. See Ex. II-38. The last reported total amount of water diverted by Islands, Inc. was 9,269 acre feet of water per year. Id.

We understand that the proposed action will involve the protection of CVP and SWP water. There was no mention of protecting riparian water right owners in the project purposes and that protection must be included. The Delta is a large region and consists of many different interests. The interests of one of the largest agricultural producing regions in the world must be protected. Ryer Island is a significant contributor to the success of agriculture in the Delta, and its resources must be protected. Riparian water rights are the highest, protected type of water rights in California. Islands, Inc. has established these water rights as a result of the existence of the island immediately adjacent to the Sacramento River. California WaterFix must ensure that no part of the project will interfere with these rights.

III. Islands' Crops and Irrigation Methods

Islands, Inc. plants and grows a number of permanent crops as well as annual crops. Permanent crops include: pears, apples, and cherries. Annual crops include: wheat, safflower, milo, alfalfa, tomatoes and asparagus. A listing of crops and acreage for Islands, Inc. is shown on Exhibit II-39. Islands, Inc. uses several types of irrigation methods, including sprinklers, flood irrigation and sub-irrigation. Islands, Inc. relies on its siphons as the primary method for irrigation. Once the siphons are primed, they operate by gravity feed to distribute water to the interior of Ryer Island and to the parcels where the crops are grown. The siphons depend upon a certain level of water in the sloughs in order to operate properly and efficiently. If the water levels drop due to low tides or low flows in the river then the siphons will not distribute water to the interior of the island and we would have to replace the existing siphons with pumps. This would require a lengthy and costly permit process. Further, if there are water quality problems at the south end of the island, then we must pump water and distribute the water from the north end. Additional pumping adds to the costs of operation and are an added burden in terms of maintenance and repair.

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IV. Salinity and Other Pollutant Concerns

There is considerable concern that the Cal WaterFix will increase the salinity for the Sacramento River as more and more fresh water is diverted at the North Delta Intakes and pumped from the Delta. There is a salinity monitoring station at the Rio Vista Bridge, as well as at various points around Ryer Island. These monitoring stations must be maintained in order to ensure water quality for Ryer Island. Any interference with water quality must be evaluated as part of this permit process and appropriate mitigation measures implemented.

The current warning system for salt water intrusion into the Delta is inadequate. Farmers at Ryer Island must monitor salinity data on line to learn of potential intrusion of saltwater into the Delta. The warning times may be as little as 30 minutes from the time the high salinity levels are detected and the time that the water may reach the pumps and siphons. The only solution for the farmers is to shut down the intakes and to divert water from the north end of the island where the water tends to be less contaminated. However, there may not be enough capacity at the diversion points in the north to accomplish this. Shutting down intakes means that farm personnel must be present at the pumps to turn them off and then be prepared to turn them on when the salt water levels drop. This causes a significant increase in the cost of operation. Alternatively, on Ryer Island, we may be able to switch irrigation to the pumps on the north side of the island and to pump that water into the irrigation system. Again, this will significantly increase our cost of operation. The standard we watch for is 1000 micro Siemens, but concentrations of salt water at lower levels can also have a detrimental effect on crop lands. If irrigation water is high in salinity and it is applied to the land, then the crop yield will drop significantly and the field may be too contaminated to grow crops in the future. The only solution is to inundate the field with clean water for an extended period of time to wash the salts from the soil. This could take several years before the soil is restored. The best and only solution is to maintain the quality of water in the river at its highest level to ensure that no salt intrusion occurs.

If, due to the diversion of fresh water at the North Delta Intakes for WaterFix, the quality of the water suffers such that it is not suitable for irrigations, then Islands, Inc. recommends several mitigation measure be in place to deal with this eventuality. First, The State Water Resources Control Board should place a permit term in the Department of Water Resources ("DWR") permit that requires DWR to install and maintain on each pump and siphon an automatic monitoring device that detects high levels of salinity and automatically shuts off the siphon or pump. Second, as an additional permit term, DWR should be required to provide a real time warning system that alerts farmers directly of high levels of pollutants in the river. This could be accomplished through a direct alarm system or one that communicates directly to the farmers through their phones or tablets. Third, DWR should be required to have in place a claims system for compensation for farmers who are injured by contaminants that reach the farmers' fields, or that increase the cost of operation when water must be pumped from other intakes. The compensation system must be permanent and must be funded on a year by year basis to ensure sufficient funds are available to cover any claims.

Islands, Inc. is also concerned with concentrations of selenium, chloride, mercury and other harmful substances increasing in the water as a result of the bypassing of large quantities of water from north to south in the pipeline. Islands, Inc. requests that additional monitoring of these substances be included in any mitigation plans and that mitigation measures be in place to prevent these pollutants from interfering with the agricultural operations on Ryer Island.

V. Land Subsidence

Islands, Inc. is also concerned about subsidence of the lands affected by the proposal. Islands, Inc.'s properties on Ryer Island are already below sea level. It is an accepted fact that the groundwater beneath Ryer Island is hydrogeologically connected directly to the flows of the Sacramento River. As water is withdrawn from the Delta that otherwise would flow as part of the underground flow of the river, then subsidence of the overlying lands can occur. Any further subsidence of the lands would move the Ryer Island surface closer to the water table. It is important for the soils on Ryer Island remain at a sufficient depth above the water table so that

seepage will not occur. If the land subsides as a result of the removal of water from the Delta through the tunnels, then there is a probability that the surface of the land will subside and expose the crops to saturation at the root level, causing root rot. Obviously, this will be highly detrimental to the growth and sustainability of the crops.

VII. Water Levels and Quantity

Not only is Islands, Inc. concerned about water quality, it is also concerned about water quantity. As more and more water is shipped south and with the tunnels proposed to bypass the region, there is considerable concern that the WaterFix will result in less fresh water being available for farmers along the path of the San Joaquin and Sacramento Rivers. Steps must be taken to ensure that the quantity of water is maintained in the river to support agriculture. The priority of Island Inc.'s water rights as a riparian right is established through the voluminous documents recently submitted to the State Water Resources Control Board. These water rights have the highest priority and whatever water is shipped south through the tunnels should not interfere with these important agricultural water rights.

Ryer Island is below sea level and must depend on Reclamation District 501's pumps to keep the island from flooding. However, Islands, Inc. also has a series of intake pumps to pump water from the river to the island for irrigation. These intakes are set at certain depths and a drop in the level of the river could mean that Islands, Inc. would not be able either to siphon or to pump water from the river. A drop in river due either to a decrease in flows or an increase in diversion upstream could mean that Islands, Inc. loses its ability to divert water and its ability to irrigate. The results could be disastrous. A fluctuation of even one foot in elevation has an effect on the efficiency of the siphons. A drop of four or five feet means that the siphon intakes are above the water line and no water is being diverted. Mitigation steps must be taken to ensure that water that is diverted north of Ryer Island does not cause a drop in the river that prevents Islands, Inc. from diverting water onto the island.

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VIII. Other Crop Impacts

Besides the potential impacts from pollutants in the river, other factors caused by the existence of Cal WaterFix will affect farming activities. If there is interference with Islands, Inc.'s ability to divert water and to irrigate, then the results could have a significant impact on farming operations. If, for example, high salinity occurs in the irrigation water, then permanent crops like peaches, apples and cherries will be most affected. I understand that these crops are the least tolerant to high salinity. They are also high dollar crops. If the quality and quantity of water will be affected by Cal WaterFix, then Islands, Inc. must reconsider its cropping patterns. Interruption of irrigation for crops like alfalfa will injure these crops since alfalfa must be irrigated at regular intervals or the plants will become too stressed and will wither. Farmers, such as Islands, Inc. will have to reconsider the types of crops they grow and in most case will have to eliminate high dollar crops in favor of those that are more drought tolerant and less sensitive to salinity. The effect will be to lessen or eliminate the amount of profit necessary to keep the farms economically viable.

Farmers, like endangered species are a fragile biological form. If you remove a food supply from an endangered species it may wither and die out. If you cause a farmer to change operations so that certain crops are eliminated, then the suppliers that support that farmer will move away. Similarly, if you remove certain crops from your plantings, then buyers of those crops will move away. The suppliers, the farmers and the buyers all depend on each other to have certain crops in the rotation, and if they are removed, the system begins to collapse.

One final consideration relates to the ability of the farmers to finance their operations. Most farmers rely on lines of credit to get them through the planting and growing seasons until they can harvest and sell their crops and have a cash flow to pay off those credit lines. Farmers may also have mortgages to finance the purchase of land. The banks who lend to the farmers are interested in the credit worthiness of the farmers, but these days the banks ask pointed questions about the farmers' water supply. Farmers must be able to demonstrate that they have an adequate, firm and stable supply of water to grow their crops or the banks may withhold

funds. Any perceived threat from Cal WaterFix to the water supply or quality may cause banks to reconsider whether it is a prudent business risk to lend to farmers in the Delta.

IX. Conclusion

From the perspective of a farm operation that employs 100 people in the Delta during the year and which depends on a firm, clean, secure water supply, Cal WaterFix causes great concern. Farmers are practical people with practical solutions to problems. It does not take an engineer or a modeler to figure out that if you take a huge amount of water out of the tub, the water level will drop and if there is soap in the tub the water gets soapier. The same is true for the Delta. The past several drought years have brought decreased water levels and increased salinity. So much so that DWR installed a drought barrier at False River and proposed one at Ryer Island on Miner Slough. These barriers were proposed to protect water quality due to decreased flows. Cal WaterFix has the potential to lessen these flows as well and we ask that careful consideration of these impacts be taken into account by the SWRCB and that no permit applications be approved that will injure existing water rights.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed on the 31st Day of October at Ryer Island, California.

Thomas Hester